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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,186

11/14/2003

Yevgeniy A. Samsonov

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7590

10/06/2006

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EXAMINER

HWANG, JOON H

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/714,186

Applicant(s)

SAMSONOV, YEVGENIY A.

Examiner

Joon H. Hwang

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 22-40 is/are rejected.
- 7) ☒ Claim(s) 14-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. The claims 1-40 are pending.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 9 and 31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

"A computer readable medium" in 1<sup>st</sup> line of claims 9 and 31 is insufficient to render the claim fallen within a statutory category, since page 8, line 18, thru page 9, line 23, define the media as including both storage media and transmission media. Thus, claims 9 and 31 are non-statutory.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "that stage" in 9<sup>th</sup> and 10<sup>th</sup> lines. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "that stage" in 3<sup>rd</sup> line. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5, 7, 9-13, 22-24, and 27-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Avadhanam et al. (U.S. Patent No. 6,778,977).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 1, Avadhanam teaches an index engine operably configured for coupling with an indexer plug-in (i.e., index creation system 414 with

index creation modules 416 in fig. 4). Avadhanam teaches an indexer plug-in having an index merger for concurrently merging sub-indexes created at a plurality of stages during indexing of content (i.e., merge tool 502 in fig. 5 and lines 5-17 in col. 2).

With respect to claim 2, Avadhanam teaches a gatherer engine operably coupled to the index engine for providing content to the index engine for indexing (i.e., access module 510 in fig. 5 and lines 30-49 in col. 8).

With respect to claim 3, Avadhanam teaches a gatherer plug-in for selecting content for indexing (i.e., access module 510 in fig. 5 and lines 30-49 in col. 8).

With respect to claim 4, Avadhanam teaches a content filter for extracting elements from content for indexing (i.e., filter 518 in fig. 5 and lines 50-61 in col. 8).

With respect to claim 5, Avadhanam teaches a content filter for extracting elements from content for indexing (i.e., filter 518 in fig. 5 and lines 50-61 in col. 8).

With respect to claim 7, Avadhanam teaches a master index resulting from merging all of the sub-indexes created during indexing of content (fig. 5 and lines 5-17 in col. 2).

The limitations of claim 9 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 10, Avadhanam teaches determining the number of stages for merging sub-indexes and determining the number of sub-indexes for each stage (fig. 4, fig. 5, lines 3-20 in col. 3, line 48 in col. 9 thru line 7 in col. 10, and lines 36-48 in col. 10). Avadhanam teaches building a sub-index in volatile memory (lines 27-51 in col. 4 and lines 30-42 in col. 14). Avadhanam teaches storing the sub-index in persistent

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storage as belonging to one of the stages (lines 27-51 in col. 4 and lines 30-42 in col. 14). Avadhanam teaches merging sub-indexes at a stage before the number of sub-indexes at that stage exceeds the number of sub-indexes determined for that stage (line 40 in col. 2 thru line 2 in col. 3, lines 9-39 in col. 17, and lines 37-49 in col. 18).

With respect to claim 11, Avadhanam teaches determining to merge sub-indexes at a stage that has half of the number of sub-indexes determined for that stage (line 40 in col. 2 thru line 2 in col. 3, lines 9-39 in col. 17, and lines 37-49 in col. 18).

With respect to claim 12, Avadhanam teaches merging all sub-indexes to create a master index (fig. 5 and lines 5-17 in col. 2).

With respect to claim 13, Avadhanam teaches merging sub-indexes at a stage comprises storing the merged sub-index at the next stage (fig. 5 and lines 5-17 in col. 2).

With respect to claim 22, Avadhanam teaches merging sub-indexes at each stage comprises merging sub-indexes at each stage while continuing to index content (fig. 5, lines 5-17 in col. 2, and lines 9-26 in col. 4).

With respect to claim 23, Avadhanam teaches merging a copy of the sub-indexes for at least one stage (fig. 5 and lines 5-17 in col. 2).

With respect to claim 24, Avadhanam teaches storing the sub-index in persistent storage as belonging to a first stage (lines 27-51 in col. 4 and lines 30-42 in col. 14).

With respect to claim 27, Avadhanam teaches concurrently merging sub-indexes at different stages (fig. 5 and lines 5-17 in col. 2).

With respect to claim 28, Avadhanam teaches using multiple processors (lines 5-17 in col. 2 and lines 9-26 in col. 4).

With respect to claim 29, Avadhanam teaches filtering information from an item being indexed (i.e., filter 518 in fig. 5 and lines 50-61 in col. 8).

With respect to claim 30, Avadhanam teaches using a different filter for each different type of content (fig. 3, fig. 5, and lines 50-61 in col. 8).

The limitations of claim 31 are rejected in the analysis of claim 10 above, and the claim is rejected on that basis.

With respect to claim 32, Avadhanam teaches creating sub-indexes at different stages of a processing pipeline (fig. 5 and lines 5-17 in col. 2). Avadhanam teaches concurrently merging sub-indexes at different stages of the processing pipeline (fig. 5 and lines 5-17 in col. 2). Avadhanam teaches continuously indexing content while merging the sub-indexes (fig. 5, lines 5-17 in col. 2, and lines 9-26 in col. 4).

With respect to claim 33, Avadhanam teaches creating a master index after content has been indexed (fig. 5 and lines 5-17 in col. 2).

With respect to claim 34, Avadhanam teaches gathering content to index (i.e., access module 510 in fig. 5 and lines 30-49 in col. 8).

With respect to claim 35, Avadhanam teaches selecting content to index (i.e., access module 510 in fig. 5 and lines 30-49 in col. 8).

With respect to claim 36, Avadhanam teaches filtering information from content to build a sub-index (i.e., filter 518 in fig. 5 and lines 50-61 in col. 8).

With respect to claim 37, Avadhanam teaches determining the number of different stages of the processing pipeline (fig. 4, fig. 5, lines 3-20 in col. 3, line 48 in col. 9 thru line 7 in col. 10, and lines 36-48 in col. 10).

With respect to claim 38, Avadhanam teaches determining the number of sub-indexes for each stage of the processing pipeline (fig. 4, fig. 5, lines 3-20 in col. 3, line 48 in col. 9 thru line 7 in col. 10, and lines 36-48 in col. 10).

With respect to claim 39, Avadhanam teaches determining when to merge sub-indexes at different stages of the processing pipeline (line 40 in col. 2 thru line 2 in col. 3, lines 9-39 in col. 17, and lines 37-49 in col. 18).

With respect to claim 40, Avadhanam teaches adding new indexing information to sub-indexes at different stages of the processing pipeline while sub-indexes are being merged (fig. 5, lines 5-17 in col. 2, line 40 in col. 2 thru line 2 in col. 3, and lines 9-26 in col. 4).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



9. Claims 6, 8, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avadhanam et al. (U.S. Patent No. 6,778,977) in view of Judd et al. (U.S. Patent No. 6,360,215).

With respect to claim 6, Avadhanam discloses the claimed subject matter as discussed above except at least one member of the set comprising document, images, audio streams and video streams. However, Judd teaches at least one member of the set comprising document, images, audio streams and video streams (i.e., indexing documents, abstract, fig. 1, and lines 22-38 in col. 1) in order to search for documents. Therefore, based on Avadhanam in view of Judd, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Judd to the system of Avadhanam in order to search for documents.

With respect to claim 8, Avadhanam discloses the claimed subject matter as discussed above except the content index comprising a dictionary. However, Judd teaches the content index comprising a dictionary (abstract, fig. 1, lines 22-38 in col. 1, and lines 1-14 in col. 9) in order to search for documents. Therefore, based on Avadhanam in view of Judd, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Judd to the system of Avadhanam in order to search for documents.

With respect to claims 25-26, Avadhanam discloses the claimed subject matter as discussed above except gathering content from the World Wide Web for indexing. However, Judd teaches gathering content from the World Wide Web for indexing and gathering at least one member of the set comprising documents, images, audio streams

and video streams (abstract, fig. 1, lines 22-38 in col. 1, and lines 1-14 in col. 9) in order to search for documents on the Internet. Therefore, based on Avadhanam in view of Judd, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Judd to the system of Avadhanam in order to search for documents on the Internet.

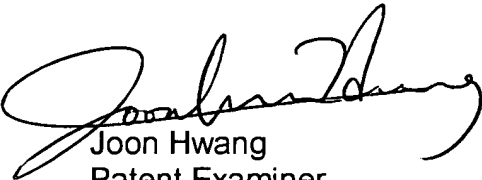
***Allowable Subject Matter***

10. Claims 14-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joon Hwang  
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Technology Center 2100

9/29/06